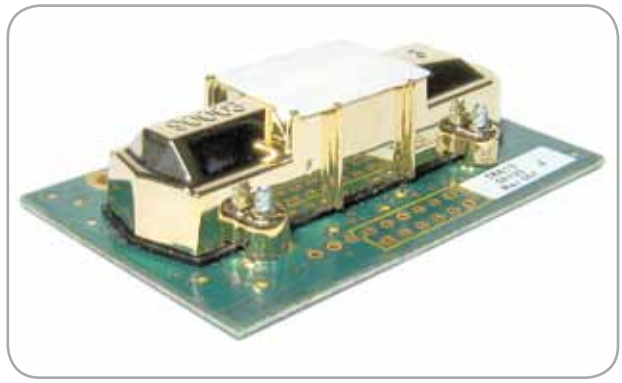
TELAIRE®

Telaire 6613 CO_2 Module

Small, Compact CO_2 Module Designed to Integrate Into Existing Controls and Equipment



The Telaire® 6613 CO_2 Module is designed to meet the volume, cost, and delivery expectations of Original Equipment Manufacturers (OEMs). The module is ideal for customers who are familiar with the design, integration, and handling of electronic components.

All units are factory calibrated to measure CO_2 concentration levels up to 2000 and 5000 ppm. Telaire dual channel sensors are available for higher concentrations.

Telaire® offers high-volume manufacturing capabilities, a global sales force, and additional engineering resources to support your sensing application needs.

Features

- An affordable gas sensing solution for OEMs.
- A reliable sensor design based on 15 years of engineering and manufacturing expertise.
- Flexible CO_2 sensor platform designed to interact with other microprocessor devices.
- Eliminates the need for calibration in most applications with Telaire's patented ABC Logic™ software. Lifetime calibration warranty.

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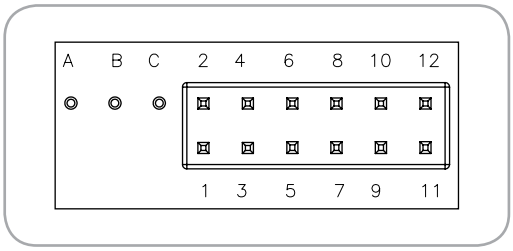
Automatic Background Logic, or ABC Logic, is a patented self-calibration technique that is designed to be used in applications where concentrations will drop to outside ambient conditions (400 ppm) at least three times in a 14 day period, typically during unoccupied periods.

**Full accuracy to be achieved utilizing ABC Logic. With ABC Logic enabled, the sensor will typically reach its operational accuracy after 25 hours of continuous operation at a condition that it was exposed to ambient reference levels of air at 400 ppm ±10 ppm CO_2. Sensor will maintain accuracy specifications with ABC Logic enabled, given that it is at least four times in 21 days exposed to the reference value and this reference value is the lowest concentration to which the sensor is exposed. ABC Logic requires continuous operation of the sensor for periods of at least 24 hours. Note: Applies when used in typical residential ambient air. Consult Telaire if other gases or corrosive agents are part of the application environment.*

Pin Designations

Connector Pinout	Function
A	TX (UART)
B	RX (UART)
C	V+ (5 VDC)
1	V+ (5 VDC)
2	GND
3	GND
4	AV OUT (0 to 4 VDC)
5	I^2C SCL
6	No Connect
7	I^2C SDA
8	No Connect
9	No Connect
10	TX (UART)
11	RX (UART)
12	GND



Module 6613-F (Flow Through)

The diffusion membrane is replaced with a non-permeable seal. The two flow ports can be used for flow through sampling. Flow rate of 50 cc/min recommended.

Handling and Installation

The T6613 CO_2 OEM modules are infrared gas sensors on a printed circuit board and should be treated carefully. Precautions should be taken to observe specified limits and prevent damage from electrostatic discharge or rough handling. Please refer to ANSI/ESD S20. 20-1999 for more information on preventing ESD damage and IPC 610 Rev D for more information on proper electronic assembly practices.

Calibration

Telaire does not recommend the customer recalibrate the T6613 module after installation. The sensor ABC Logic algorithm will begin after 24 hours, adjusting the sensor measurement resulting in sensor-to-sensor consistency. If immediate consistency is desired, the sensors may be single point calibrated using pre-mixed reference gas or ambient air measured by a reference sensor.

Available Models

Part Number	Sampling Method	Measurement Range
T6613	Diffusion	0-2,000 ppm
T6613-F	Flow Through	0-2,000 ppm
T6613-C	Diffusion with gas ports	0-2,000 ppm
T6613-R12	Diffusion, 12 second rate	0-2,000 ppm
T6613-5K	Diffusion	0-5,000 ppm
T6613-5KF	Flow through	0-5,000 ppm
T6613-5KC	Diffusion with gas ports	0-5,000 ppm

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www.telaire.com

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AAS-920-448J-09/2014